# IV. RESOURCE EVALUATION

### **INTRODUCTION**

The significant archaeological, geologic, scenic, recreational and biological resources of North Carolina should be represented in a completed state parks system. These resources have been categorized into 108 themes. While some progress has been made in the last five years to improve the representation of these themes in the state parks system, many themes continue to be poorly represented.

This chapter contains an evaluation of the archaeological, geologic, scenic, recreational and biological resources in the state parks system and identifies themes inadequately protected by the system. Expansion of the state parks system to provide additional protection to these inadequately represented themes is a high priority.

### **EVALUATION**

To fulfill these mandates for the first Systemwide Plan, five committees were formed to analyze the unique resource categories cited in the Act. Committees were composed of academic and state experts and representatives of relevant citizen groups. They were charged with fulfilling the following objectives:

- 1. Define resource themes within each of the five resource categories;
- 2. Determine the significance of themes within geographic regions;
- 3. Identify representation of themes within state parks system units;
- 4. Evaluate the representation of themes within geographic regions; and
- 5. Rank the amount of protection that park units provide for significant biological, geological, recreational, scenic and archeological resources.

Biological, geological, scenic and recreational resources were reevaluated in 1999 by the Division of Parks and Recreation (DPR) for this plan update. The archaeological resources have not been reevaluated since the original plan because there are no "veryhigh" protection needs. The evaluation of biological and geological resources has been revised using the results of the Natural Heritage Program's most recent Biennial Protection Plan. These findings are summarized in Tables IV-2 through IV-5.

## **Definition of Resource Themes**

Within each resource category cited in the State Parks Act (archeological, geological, scenic, recreational and biological) are subcategories called resource "themes". The committees identified 108 themes that should be protected in order to preserve representative examples of unique biological, geological, scenic, and archeological resources in a comprehensive state parks system (Table IV-1). Definitions of themes are included in Appendix D. The method of analyzing recreational resources did not involve identifying themes.

# **Significance of Themes Within Regions**

After identifying resource themes, the committees rated their significance within four natural regions: Tidewater, Coastal Plain, Piedmont, and Mountain (Table IV-2). The committees determined the level of significance of each theme in each region and rated the level of significance as "high", "moderate", "low", or "none" based on the quality, quantity and diversity of the theme in the region. For themes that did not exist in a region, no rating is assigned. The significance of themes within regions is found in the columns labeled "Significance" in Tables IV-2 through IV-5.

# Representation of Themes in Parks Within Geographic Regions

Committee members used their professional judgement to determine whether resource themes are adequately represented in the state parks system within each region. The committees rated the adequacy of the protection within the regions as either "adequate", "moderate", "little", or "none". Themes that do not exist in a region were not labeled. Judgements were based upon the quality, quantity and diversity of the theme being protected. Committee results and staff updates from the addition of 20,802 acres at 23 park units are listed in columns labeled "Representation" in Tables IV-2 through IV-5.

# **Duplications and Deficiencies in the State Parks System**

Deficiencies in the North Carolina state parks system exist where there is inadequate representation of unique archeological, geological, scenic, recreational, and biological themes (Tables IV-2 through IV-5). An indication of deficiencies and duplications can be derived by examining the representation and significance of themes defined by the resource committees.

Table IV-1. Themes Identified by Resource Evaluation Committees

PIOLOGICAL			CCENIC
BIOLOGICAL	GEOLOGICAL	ARCHEOLOGICAL	SCENIC
Spruce-Fir Forests	Barrier Islands and Shoreline	PREHISTORIC	Scenic Vistas
Grass and Heath Balds	Estuaries	Village	Reservoirs/Lakes
Northern Hardwood Forests	Continental Shelf	Campsite/ Activity Area	Waterfalls
Mountain Cove Forests	Relict Coastal Features	Shell Midden	Rivers
Piedmont and Coastal Plain	Caroli na Bays	Burial/Cemetery	Whitewater Streams
Mesic Forests	Fluvial Depositional Features	Quarry/Soapstone	Forests
Piedmont and Mountain Dry	Peatlands and Interstream	Quarry/Other	Meadows and
Coniferous Woodlands	Wetlands	Shelter/Cave	Grasslands
Montane Oak Forests	Natural Lakes and Ponds	Rock Art	Swamps
Piedmont and Coastal Plain	Caves, Sinks, and Springs	Trail/Path	Pocosins
Oak Forests	Dissected Uplands	Underwater	Marshes
High Elevation Rock Outcrops	Inselbergs (Monadnocks)	Other	Gorges
Low Elevation Cliffs and Rock	Cliffs	I I I I I I I I I I I I I I I I I I I	Rock Outcrops
Outcrops	Exfoliation Outcrops	HISTORIC	Islands
Coastal Plain Marl Outcrops	Gorges, Rapids, Waterfalls	Recreation	Caves and Cliffs
Granitic Flatrocks	Mass Wasting Features	Public Works	Bays and Estuaries
Mafic Glades and Barrens	Faults, Joints, and Related	Public/Civic/Religious	Seashores
Maritime Grasslands	Features	Commercial	Scenic Highways
Maritime Upland Forests	Folds and Related Features	Urban/Domestic	
Dry Longleaf	Intrusions	Rural/Domestic	
Pine Communities	Volcanic Features	Cemetery	
Blackwater Coastal Plain	Metamorphic Features	Industrial	
Floodplains	Sedimentary Features	Mills	
Brownwater Coastal Plain	Fossils	Transportation	
Floodplains	Unusual Rock Types	Military	
Piedmont and Mountain		Underwater Other	
Floodplains		Otner	
Riverine Aquatic Communities		CTANDING CTDUCTUDE	
Mountain Bogs and Fens		STANDING STRUCTURE Recreation	
Upland Seepages and		Public Works	
Spray Cliffs		Public Works Public/Civic/Religious	
Piedmont Upland Pools and Depressions		Commercial	
and Depressions Coastal Plain Nonalluvial		Urban/Domestic	
Mineral Wetlands		Rural/Domestic	
Peatland Pocosins		Cemetery	
Streamhead Pocosins		Industrial	
Wet Pine Savannas		Mills	
Coastal Plain Depression		Transportation	
Communities		Military	
Natural Lake Communities		Other	
Maritime Wetland Forests			
Freshwater Tidal Wetlands			
Estuarine Communities			
Latuarine Communities			

### ARCHEOLOGICAL THEME REPRESENTATION

Five archeological themes have high protection needs: prehistoric village (Coastal Plain, Piedmont), prehistoric burial/cemetery (all regions), standing structure mills (Mountain), historic industrial (Piedmont, Mountain) and historic commercial (Piedmont, Mountain). The most duplicated themes include prehistoric campsite/activity areas, historic rural-domestic, and standing structure rural-domestic.

Archeological themes as defined by the archeological committee are relatively well covered by the state parks system. This is not to say they are well preserved or interpreted, but simply that most archeological themes exist, or are likely to exist, within the state parks system. Expansion needs to protect significant archeological themes are identified by bold capital letters in Table IV-2. The committee recommended that the state should take action to preserve inadequately protected themes before establishing new units to represent themes that are already well represented and protected within the state parks system.

Archeological surveys have been conducted in portions of 19 units of the state parks system as part of the capital development construction process. Prior to ground-disturbing activities (e.g., road construction, capital improvements), archeological surveys are often required to identify and evaluate any cultural resources that may be adversely affected. Such a piecemeal approach to identifying archeological values within the state parks system has resulted in an uncoordinated and inadequate inventory.

The archeological committee also made the following recommendations:

- 1. The state parks system should consider conducting cultural resource surveys and evaluations in-house. Doing so would considerably speed up the planning process, facilitate compliance with regulatory requirements, and aid in the development of interpretive programming. It is recommended that DPR employ two professional archaeologists (master's degree or better) and one laboratory technician to manage the cultural resource program. In addition, an architectural historian should be hired under contract to conduct a comprehensive inventory and evaluation of all standing structures in the parks.
- 2. It is recommended that DPR continue training staff in the overall principles and procedures of cultural resource management. Proposed program topics include:
  - a. current state cultural resource protection laws (e.g., the Archeological Resources Protection Act, the Unmarked Human Burial and Human Skeletal Remains Act);
  - b. the general prehistory and history of North Carolina;
  - c. identification and treatment of cultural materials;
  - d. proper approaches to recording and interpreting cultural resources in general; and
  - e. cultural resource preservation and management procedures.
- 3. DPR should employ one or more trained individuals to compile and synthesize the extant cultural resource information available within DPR and the Division of Archives and History.

Table IV-2. Statewide Significance of Archeological Themes and Their Representation in the State Parks System

	REGIONS								
THEMES	TIDE	WATER	COAST	AL PLA IN	PIEDMONT		MOUN TAIN		
	Significance	Representation	Significance	Representation	Significance	Representation	Significance	Representation	
PREHISTO RIC ARCHEO LOGICAL: Village	High	Adequate	HIGH	MODERATE	HIGH	MODERATE	High	Adequate	
Campsite/Activity Area	High	Adequate	High	Adequate	High	Adequate	High	Adequate	
Shell Midden	High	Adequate							
Burial/Cemetery	HIGH	MODERATE	HIGH	MODERATE	HIGH	MODERATE	HIGH	MODERATE	
Quarry—Soapstone			None	Little	None	Little	High	Moderate	
Quarry—Other			None	Little	High	Adequate	High	Moderate	
Shelter/Cave			High	Adequate	High	Adequate	High	Adequate	
Rock Art			None	Little	High	Moderate	High	Moderate	
Trail/Path	None	Little	None	Little	High	Adequate	High	Moderate	
Underwater	High	Adequate	High	Adequate	High	Adequate	High	Moderate	
Other	None	Little	None	Little	None	Little	None	Little	
HISTORIC AR CHEOLO GICAL: Recreation	High	Adequate	High	Adequate	High	Adequate	High	Adequate	
Public W orks	High	Adequate	High	Adequate	High	Adequate	High	Moderate	
Public/Civic/Religious	High	Adequate	High	Adequate	High	Adequate	High	Adequate	
Commercial	High	Adequate	High	Adequate	High	Moderate	High	Moderate	
Urban— Domestic	None	Little	High	Adequate	None	Little	None	Little	
Rural—Domestic	High	Adequate	High	Adequate	High	Adequate	High	Adequate	
Cemetery	High	Adequate	High	Adequate	High	Adequate	High	Adequate	
Industrial	High	Adequate	High	Adequate	HIGH	LITTLE	HIGH	LITTLE	
Mills	High	Adequate	High	Adequate	High	Adequate	None	Little	
Transportation	High	Adequate	High	Adequate	High	Moderate	High	Moderate	

Table IV-2. Statewide Significance of Archeological Themes and Their Representation in the State Parks System (continued)

	REGIONS								
THEMES	TIDE	TIDEWATER		COASTAL		PIEDMONT		NTAIN	
	Significance	Representation	Significance	Representation	Significance	Representation	Significance	Representation	
Military	High	Adequate	High	Adequate					
Underwater	High	Adequate	High	Adequate	High	Moderate			
Other			None	Little					
STANDING STRUCTURE S: Recreation			High	Adequate	High	Adequate	High	Adequate	
Public Works			High	Adequate	High	Adequate	High	Moderate	
Public/Civic/Religious			High	Adequate			High	Adequate	
Commercial			High	Adequate			High	Moderate	
Urban— Domestic			High	Adequate					
Rural—Domestic			High	Adequate	High	Adequate	High	Adequate	
Cemetery			High	Adequate	High	Moderate	High	Moderate	
Industrial			High	Adequate			High	Moderate	
Mills	High	Adequate	High	Adequate	High	Adequate	HIGH	MODERATE	
Transportation			High	Adequate	High	Moderate	High	Moderate	
Military	High	Adequate	High	Adequate					
Other									

Notes: High expansion needs are shown in **BOLD CAPITAL** letters. Where no entry has been made, themes are not applicable.

### GEOLOGICAL THEME REPRESENTATION

Twelve geological themes were rated as having very high expansion needs in at least one region. Four of these twelve themes had very high expansion needs in more than one region, making a total of 18 theme-region combinations rated as having very high expansion needs. These 18 very high expansion needs are highlighted in Table IV-3 by bold type and shading. Very high expansion needs are those that have high significance in a region and have little or no representation in the State Parks System.

Five geological themes and theme-region combinations have high expansion needs (Table IV-3). High expansion needs are these that have high significance in a region and have moderate but not adequate representation in the State Parks System. They are indicated in Table IV-3 by bold type, but have no shading.

During the past five years, two themes in the Mountain Region improved from little to moderate representation, and therefore from very high to high needs, due to new acquisitions since the last System Plan. Under-represented themes include: continental shelf (Tidewater), cliffs (Tidewater), volcanic features (Mountain), fossils (Tidewater, Coastal Plain, Piedmont), caves/sinks/springs (Coastal Plain, Piedmont, Mountain), relict coastal features (Tidewater, Coastal Plain), mass wasting features (Coastal Plain), unusual rock types (Tidewater, Mountain), folds and related features (Mountain), sedimentary features (Mountain), gorges/rapids/waterfalls (Coastal Plain), and fluvial depositional features (Mountain). Themes that are duplicated include: barrier islands/seashores, natural lakes/ponds, Carolina bays, peatlands and interstream wetlands, estuaries, and inselbergs.)

Fossils, caves/sinks/springs, and unusual rock types have little coverage across all regions. On the other hand, barrier islands, Carolina bays, exfoliation outcrops, intrusions, and metamorphic features have adequate representation. The Piedmont offers the most protection to geological themes within the state parks system, whereas the Tidewater offers the least.

Table IV-3. Statewide Significance of Geological Themes and Their Representation in the State Parks System

		REGIONS								
THEMES	TIDE	WATER	COAST A	AL PLA IN	PIEDMONT		MOUN TAIN			
	Significance	Representation	Significance	Representation	Significance	Representation	Significance	Representation		
Barrier Islands and Shorelines	High	Adequate	None		None		None			
Estuaries	High	Adequate	Little	None	None		None			
Continental Shelf	нісн	NONE	None		None		None			
Relict Coastal Features	HIGH	LITTLE	HIGH	NONE	None		None			
Carolina Bays	High	Adequate	High	Adequate	None		None			
Fluvial Depositional Features	High	Adequate	High	Adequate	HIGH	MODERATE	HIGH	LITTLE		
Peatlands and Interstream Wetlands	High	Adequate	High	Adequate	None		None			
Natural Lakes and Ponds	High	Adequate	High	Adequate	None		None			
Caves, Sinks, and Springs	High	Adequate	HIGH	NONE	HIGH	LITTLE	HIGH	NONE		
Dissected Uplands	Little	None	High	Adequate	High	Adequate	High	Adequate		
Inselbergs (Monadn ocks)	None		Little	None	High	Adequate	High	Adequate		
Cliffs	HIGH	NONE	High	Adequate	High	Adequate	High	Adequate		
Exfoliation Outcrops	None		None		High	Adequate	High	Adequate		
Gorges, Rapids, and Waterfalls	None		HIGH	LITTLE	High	Adequate	High	Adequate		
Mass Wasting Features	None		HIGH	NONE	High	Adequate	HIGH	MODERATE		
Faults, Joints, and Related Features	None		Little	None	High	Adequate	HIGH	MODERATE		
Folds and Related Features	None		Little	None	High	Adequate	HIGH	LITTLE		
Intrusions	None		Little	Adequate	High	Adequate	High	Adequate		
Volcanic Features	None		Little	None	High	Adequate	HIGH	NONE		
Metamorphic Features	None		High	Adequate	High	Adequate	High	Adequate		
Sedimentary Features	High	Adequate	High	Adequate	HIGH	MODERATE	HIGH	NONE		
Fossils	нісн	NONE	HIGH	LITTLE	HIGH	NONE	Little	None		
Unusual Rock Types	HIGH	NONE	High	Adequate	HIGH	MODERATE	HIGH	LITTLE		

Notes: Very high expansion needs are shaded. High expansion needs are shown in **BOLD CAPITAL** letters. Where no entry has been made, themes are not applicable.

### SCENIC THEME REPRESENTATION

Nine scenic themes are rated as having very high expansion needs (Table IV-4: very high expansion needs are shaded; high expansion needs are shown in bold capital letters). These include: scenic high ways (all regions), meadows/grasslands (all regions), whitewater streams (Piedmont), waterfalls (Piedmont), rivers (Tidewater, Piedmont), islands (Tidewater, Piedmont), rock outcrops (Coastal Plain), caves/cliffs (Coastal Plain, Piedmont, Mountain) and bays/estuaries (Tidewater).

All scenic themes had some representation in the state parks system, although significant scenic highways had no representation within the Tidewater and Coastal Plain regions. Across all regions, approximately half the scenic themes are represented in state parks. The committee advocated adding additional units in the Piedmont region to serve a rapidly expanding population and in the Mountain region to preserve significant resources.

# IV-10

Table IV-4. Statewide Significance of Scenic Themes and Their Representation in the State Parks System

	REGIONS								
THEMES	TIDEWATER		COAST AL PLA IN		PIEDMONT		MOUN TAIN		
	Significance	Representation	Significance	Representation	Significance	Representation	Significance	Representation	
Scenic Vistas	HIGH	MODERATE	HIGH	MODERATE	HIGH	MODERATE	HIGH	MODERATE	
Reservoirs/Lakes	HIGH	MODERATE	High	Adequate	High	Adequate	HIGH	MODERATE	
Waterfalls	_				HIGH	LITTLE	High	Adequate	
Rivers	HIGH	LITTLE	HIGH	MODERATE	HIGH	LITTLE	HIGH	MODERATE	
White Water Streams					HIGH	LITTLE	HIGH	MODERATE	
Forests	нісн	MODERATE	HIGH	MODERATE	HIGH	MODERATE	HIGH	MODERATE	
Meadows/Grasslands	HIGH	LITTLE	HIGH	LITTLE	HIGH	LITTLE	HIGH	LITTLE	
Swamps	High	Adequate	High	Adequate					
Pocosins	нісн	MODERATE	HIGH	MODERATE					
Marshes	нісн	MODERATE	HIGH	MODERATE					
Gorges							HIGH	MODERATE	
Rock Outcrops	_		HIGH	LITTLE	HIGH	MODERATE	HIGH	MODERATE	
Islands	нісн	LITTLE			HIGH	LITTLE			
Caves/Cliffs	нібн	NONE	HIGH	LITTLE	HIGH	LITTLE	HIGH	MODERATE	
Scenic Highways	нісн	NONE	HIGH	NONE	HIGH	LITTLE	HIGH	LITTLE	
Bays/Estuaries	нісн	LITTLE							
Seashores	HIGH	MODERATE							

Notes: Very high expansion needs are shaded. High expansion needs are shown in **BOLD CAPITAL** letters. Where no entry has been made, themes are not applicable.

### BIOLOGICAL THEME REPRESENTATION

Over 116 natural community types have been identified and described in North Carolina (Schafale and Weakley, 1990). These have been grouped into 32 biological themes based on similarities in environment and vegetation. Each of the themes is fully described in the Natural Heritage Program Biennial Protection Plan (Division of Parks and Recreation, 1993).

As land within North Carolina is altered for agriculture, forestry, industry, and residential development, one of the consequences is a reduction of natural diversity in the landscape. Undisturbed natural communities in North Carolina are very diverse, varying in geology, soil type, topography, moisture, flora, and fauna. It is the purpose of the state parks system to protect representative examples of the state's natural diversity for the benefit and enjoyment of all the citizens. At present, the state parks system includes representative examples of many of the state's biological themes. However, many themes are not adequately represented. Expansion of the state parks system for protection of biological diversity should focus on the themes which are not yet adequately represented.

Thirteen biological themes are rated as having very high expansion needs (Table IV-5; very high expansion needs are shaded; high expansion needs are shown in bold capital letters). These include: grass and heath balds (Mountain), northern hardwood forests (Mountain), coastal plain marl outcrops (Tidewater), mafic glades and barrens (Piedmont and Mountain), brownwater coastal plain floodplains (Coastal Plain), riverine aquatic communities (Tidewater and Piedmont), mountain bogs and fens (Mountain), piedmont upland pools and depressions (Piedmont), coastal plain nonalluvial mineral wetlands (Tidewater), peatland pocosins (Tidewater), streamhead pocosins (Coastal Plain), wet pine savannas (Tidewater and Coastal Plain), and coastal plain depression communities (Tidewater and Coastal Plain).

# IV-12

Table IV-5. Statewide Significance of Biological Themes and Their Representation in the State Parks System

3	REGIONS								
THEMES	TIDEWATER		COAST AL PLA IN		PIEDMONT		MOUN TAIN		
	Significance	Representation	Significance	Representation	Significance	Representation	Significance	Representation	
Spruce-Fir Forests							HIGH	MODERATE	
Grass and Heath Balds							HIGH	LITTLE	
Northern H ardwood Forests							HIGH	LITTLE/MOD.	
Mountain Cove Forests							HIGH	MODERATE	
Piedmont and Coastal Plain Mesic Forests	HIGH	MODERATE	High	Adequate	High	Adequate	Little	None	
Piedmont and Mtn Dry Coniferous Woodlands					Moderate	Moderate	HIGH	MODERATE	
Montan e Oak Fores ts					Moderate	Adequate	HIGH	MODERATE	
Piedmont and Coastal Plain Oak Forests	MODERATE	LITTLE	High	Adequate	HIGH	MODERATE	Little	None	
High Elevation Rock Outcrops							HIGH	MODERATE	
Low Elevation Cliffs and Rock Outcrops	Little	None	Moderate	Adequate	HIGH	MODERATE	HIGH	MODERATE	
Coastal Plain Marl Outcrop	нібн	NONE	MODERATE	NONE					
Granitic Fla trocks					HIGH	MODERATE			
Mafic Glades and Barrens					HIGH	NONE	HIGH	NONE	
Maritime Grasslands	High	Adequate							
Maritime Upland Forests	HIGH	MODERATE							
Dry Longleaf Pine Communities	HIGH	MODERATE	HIGH	MODERATE	MODERATE	NONE			
Blackwater Coastal Plain Floodplains	HIGH	MODERATE	HIGH	MODERATE	Low	None			
Brownwater Coastal Plain Floodplains	Little	None	HIGH	LITTLE					
Piedmont and Mountain Floodplains			Moderate	Adequate	HIGH	MODERATE	HIGH	MODERATE	

Table IV-5. Statewide Significance of Biological Themes and Their Representation in the State Parks System (continued)

	REGIONS								
THEMES	TIDEWATER		COASTAL		PIEDMONT		MOUN TAIN		
	Significance	Representation	Significance	Representation	Significance	Representation	Significance	Representation	
Riverine Aquatic Com munities	HIGH	LITTLE	HIGH	MODERATE	HIGH	LITTLE	HIGH	MODERATE	
Mountain Bogs and Fens							HIGH	NONE	
Upland Seepages and Spray Cliffs					Moderate	Little	HIGH	LITTLE	
Piedmont Upland Pools and Depressions					HIGH	LITTLE	Little	None	
Coastal Plain Nonalluvial Mineral Wetlands	нібн	LITTLE	MODERATE	NONE					
Peatland Pocosins	HIGH	LITTLE	High	Adequate					
Streamhead Pocosins	Little	Little	HIGH	NONE	Moderate	Little			
Wet Pine Savannas	HIGH	LITTLE	HIGH	LITTLE	Moderate	None			
Coastal Plain Depression Communities	нідн	LITTLE-MOD.	HIGH	LITTLE					
Natural Lake Communities	нібн	MODERATE	High	Adequate					
Maritime Wetland Forests	HIGH	MODERATE							
Freshwater Tidal Wetlands	нібн	MODERATE							
Estuarine Comm unities	High	Adequate							

### RECREATION EXPANSION NEEDS

Recreation resources are large tracts of land and water that are suitable for providing natural-resource based recreation activities typically provided by the state parks system. Many factors determine whether a site is suitable for providing natural-resource oriented recreation activities. These factors include acreage, the absence of incompatible features, current land use, slope, vegetation, and public access.

Recreational resource expansion needs are analyzed differently than the other resource categories. Significant biological, geological, archeological, and scenic resources occur naturally in the state and are not distributed equally across the state. These natural resources must be protected where they exist. Satisfying public recreation needs at sites that are designed to accommodate more intensive visitor use can, however, help protect significant natural resources by reducing visitor use at more fragile sites.

Land and water that is suitable for outdoor recreation use can usually be located where they will best serve the state's population. This is especially true of state recreation areas, such as Jordan Lake State Recreation Area, that usually have limited natural significance and are intended primarily to meet public recreation needs. Highest priority for acquiring new recreation resources in the state park system should be given to areas that will serve large populations that currently have access to limited state park acreage.

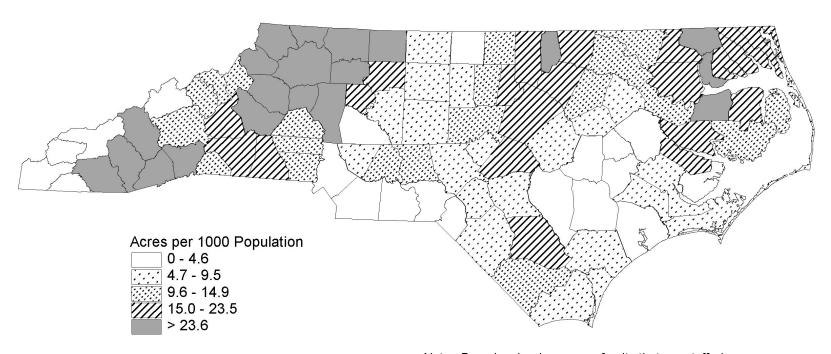
Selecting the locations of new park units should take into account the travel patterns of park visitors. According to the 1986 PARVS study, most people travel less than 60 miles to visit a state park. The survey determined that 37 percent of visitors travel less than 30 miles to visit a state park and the majority of visitors (54 percent) travel less than 60 miles. Because of these travel patterns, a state park's service area can be defined as the counties within a 50-mile radius.

Using a model that takes county populations and travel distance to each park into account, existing state park acreage was allocated to North Carolina counties (Figure IV-1). Counties with higher populations that are closer to state parks are considered to have greater access to park acreage than counties with lower populations that are farther from state parks. Counties with access to fewer park acres per 1,000 population should have higher priority in locating new parks. Conversely, counties with access to more park acres should have lower priority.

According to the analysis, the four areas listed below are identified as high priority areas for expanding recreation resources in the state parks system. Because the populations in and around Mecklenberg and Guilford counties are among the largest in North Carolina, these two areas should have the highest priority.

- Mecklenburg, Union and surrounding counties
- Guilford, Alamance and surrounding counties
- Cherokee, Clay and Graham Counties
- Lenoir, Pitt, Wayne and surrounding counties

# State Park System Acreage per 1,000 Population by County



Note: Based on land acreage of units that are staffed and open to the public. Park acreage is distributed to counties within 50 miles of each park based on county populationand distance from the park.